

Application Serial No.: 09/646,343  
Amendment dated December 1, 2003  
Reply to Office Action dated August 29, 2003

### **AMENDMENTS TO THE CLAIMS**

This listing of the claims will replace all prior versions, and listing, of claims in the application:

#### **Listing of Claims:**

1. (Previously Presented) A film deposition apparatus comprising:
  - a container forming a processing chamber for processing a target object;
  - a mounting table which is provided in the processing chamber and on which the target object is mounted;
  - a first heating apparatus provided in the mounting table;
  - a first gas supply section provided in the container, for supplying processing gas into the processing chamber adapted to form a thin film on the target object mounted on the mounting table;
  - a movable clamp for clamping an edge portion of the target object and holding the target object on the mounting table;
  - a second heating apparatus formed separately from the mounting table to surround the mounting table and arranged below the clamp to be opposite the clamp;
  - a first gas flow path defined by the mounting table and the second heating apparatus;
  - a second gas flow path formed between the clamp and the second heating apparatus when the clamp is moved to a position where the clamp clamps the target object; and
  - a second gas supply section for causing backside gas to flow into the first and second gas flow paths.

2. (Previously Presented) The film deposition apparatus according to claim 1, wherein the first and second gas flow paths extend so as to pass the edge portion of the target object clamped by the clamp.

3. (Previously Presented) The film deposition apparatus according to claim 1, wherein the backside gas acts as a heat-transfer medium for transferring heat from the second heating apparatus to the clamp.

4. (Previously Presented) The film deposition apparatus according to claim 1, wherein the backside gas acts as film-depositing prevention gas for preventing the processing gas from diffusing around the edge portion of the target object.

5. (Previously Presented) The film deposition apparatus according to claim 1, wherein the second gas supply section is configured to supply cleaning gas for removing a film from the edge portion of the target object.

6. (Original) The film deposition apparatus according to claim 1, wherein the backside gas is constituted of inert gas.

7. (Original) The film deposition apparatus according to claim 1, wherein the backside gas is constituted of same gas as part of gas components constituting the processing gas.

8. (Previously Presented) The film deposition apparatus according to claim 1, wherein the first gas supply section is configured to supply processing gas to form a high-melting-point metal film layer.

9. (Original) The film deposition apparatus according to claim 1, wherein the gas flow path is provided with a buffer section for controlling conductance of the gas flow path.

10. (Original) The film deposition apparatus according to claim 1, further comprising a control section for controlling a heating value of the second heating apparatus such that temperature distribution on an entire processing surface of the target object is uniformed.

11. (Original) The film deposition apparatus according to claim 1, wherein the clamp is shaped like a ring and clamps all of the edge portion of the target object against an inner edge portion thereof.

12. (Original) The film deposition apparatus according to claim 11, wherein the inner edge portion of the clamp, against which the target object is clamped, has a tapered surface which is brought into line contact with the target object.

13. (Previously Presented) The film deposition apparatus according to claim 2, wherein the backside gas acts as a heat-transfer medium for transferring heat from the second heating apparatus to the clamp.

14. (Previously Presented) The film deposition apparatus according to claim 2, wherein the backside gas acts as film-depositing prevention gas for preventing the processing gas from diffusing around the edge portion of the target object.

15. (Previously Presented) The film deposition according to claim 2, wherein the second gas supply section is configured to supply cleaning gas for removing a film from the edge portion of the target object.

16. (Currently Amended) A film deposition apparatus comprising:

a container forming a processing chamber for processing a target object;

a mounting table which is provided in the processing chamber and on which the target

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object is mounted,

a first heating apparatus provided in the mounting table,

a first gas supply section provided in the container, for supplying processing gas into the processing chamber adapted to form a thin film on the target object mounted on the mounting table;

a movable clamp for clamping an edge portion of the target object by an inner peripheral tapered surface of the clamp and holding the target object on the mounting table;

a second heating apparatus arranged below the clamp to be opposite to the clamp;

a gas flow path ~~formed between~~ defined by the clamp, ~~and~~ the second heating apparatus, and the mounting table when the clamp is moved to a position where the clamp clamps the target object; and

a second gas supply section for causing backside gas to flow into the gas flow path to direct the gas to an outer periphery of the clamp.

17. (New) The film deposition apparatus according to claim 16, wherein the gas flow path extends so as to pass the edge portion of the target object clamped by the clamp.

18. (New) The film deposition apparatus according to claim 17, wherein the backside gas acts as a heat-transfer medium for transferring heat from the second heating apparatus to the clamp.

19. (New) The film deposition apparatus according to claim 17, wherein the backside gas acts as film-depositing prevention gas for preventing the processing gas from diffusing around the edge portion of the target object.

20. (New) A film deposition apparatus comprising:

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a container forming a processing chamber for processing a target object;

a mounting table which is provided in the processing chamber and on which the target object is mounted,

a first heating apparatus provided in the mounting table,

a first gas supply section provided in the container, for supplying processing gas into the processing chamber adapted to form a thin film on the target object mounted on the mounting table;

a movable clamp for clamping an edge portion of the target object and holding the target object on the mounting table;

a second heating apparatus arranged below the clamp to be opposite to the clamp;

a gas flow path defined by the clamp, the second heating apparatus, and the mounting table when the clamp is moved to a position where the clamp clamps the target object; and

a second gas supply section for causing backside gas to flow into the gas flow path.